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NON-GONOCOCCAL URETHRITIS CONTACTS*†

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In view of the doubt about the aetiology of non-gonococcal urethritis (N.G.U.), it was thought that a study of the clinical and bacteriological findings in female contacts of males suffering from this disease might prove to be of value.

Case Material

An endeavour was made to examine the female contacts of all new male N.G.U. patients attending three special treatment centres. 63·6 per cent. of the women were referred by their husbands and the remainder by other sex contacts (Table I). The 250 cases dealt with in this series were unselected except that the contacts of men who developed N.G.U. while under surveillance for gonorrhoea were excluded from the inquiry in order to avoid introducing a complicating factor.

TABLE I

RECOMMENDATION TO CLINIC OF 250 N.G.U. CONTACTS

Person Recommending	No.	Per cent.
Husband	159	63·6
Other Contact	91	36·4
Total	250	100

In Table II the word "Married" means married and living with her husband. "Other" means single, divorced, widowed, or separated from her husband. 171 (68·4 per cent.) contacts were married women living with their husbands. The largest number (25·6 per cent.) were in the 20 to 24-year-old age group. It may be significant that half of this percentage were women of 40 to 44 years of age. The youngest contact was 17 and the oldest 57 years.

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TABLE II

AGE AND MARITAL STATUS

Age Group (yrs)	Cases		Marital Status	
	No.	Per cent.	Married	Other
19 and under ..	16	6·4	2	14
20 to 24	64	25·6	36	28
25 to 29	53	21·2	38	15
30 to 34	39	15·6	32	7
35 to 39	31	12·4	26	5
40 to 44	32	12·8	26	6
45 to 49	8	3·2	5	3
50 and Over ..	7	2·8	6	1
Total	250	—	171	79

Findings

Symptoms.—The commonest symptom was a vaginal discharge; this was complained of by 34·4 per cent. of the contacts; 60·8 per cent. of the women stated that they were symptom-free (Table III).

TABLE III

MAIN SYMPTOMS

Symptom	No.	Per cent.
Dysuria	9	3·6
Vaginal Discharge	86	34·4
*Other	3	1·2
Nil	152	60·8
Total	250	100

* Pruritus vulvae, vulval pain, low backache

Source of Infection.—103 (41·2 per cent.) of the women admitted that they had had an exposure to possible venereal infection within 3 months of attending the special treatment centre. Experience indicates that if a woman admits extramarital intimacy she is usually, if reluctantly, telling the truth; but that, if she denies it, she is not always honest. Therefore, one can assume that 41·2 per

cent. is a minimum figure and the actual percentage of recent extramarital relations in female contacts of males with N.G.U. may be in the region of 50 per cent. or more (Table IV).

TABLE IV
COITUS WITHIN PREVIOUS 3 MONTHS, BY MARITAL STATUS

Coitus	No.	Per cent.
Marital	147	58·8
Other	103	41·2
Total	250	100

Specimens.—In addition to clinical examination, unstained wet films from the urethra and vaginal fornices of each patient were examined. From the urethra and endocervix, smears and cultures were taken as a routine. Other specimens were obtained from Skene's ducts, Bartholin's ducts, and the rectum, if the history, symptoms, or signs suggested that these would assist in the diagnosis.

It was considered that the normal healthy female urethral and vaginal secretions showed no polymorphonuclear leucocytes in wet films or stained smears. Hence, the presence of these cells in vaginal specimens was an indication of some inflammatory process in the vagina, endocervix, or possibly the uterus.

The same criterion applied to other areas, such as the urethra or Bartholin's ducts. Table V indicates that 67·2 per cent. had unhealthy genito-urinary tracts at one site or another.

TABLE V
PRINCIPAL CYTOLOGICAL FINDINGS

Polymorphonuclear Leucocytes		No.	Per cent.
Positive	In Urethra	2	0·8
	In Vagina	125	50·0
	In both Urethra and Vagina	41	16·4
			67·2
Negative		82	32·8
Total		250	100

Diagnosis.—Table VI gives the final diagnosis. 35 per cent. of the N.G.U. contacts were suffering from trichomoniasis (mostly vaginal but several urethral or both).

A further 29·6 per cent. had endocervicitis or cervical erosions. The majority of these lesions were indistinguishable macroscopically from those found in untreated subacute and chronic gonorrhoea. Endocervicitis and cervical erosions occurred in both nulliparous and parous women. Nabothian follicles were seldom seen. It is noteworthy that only two women had both trichomoniasis and cervical erosions.

TABLE VI
DIAGNOSIS

Diagnosis	No.	Per cent.
Trichomoniasis	87	34·8
Endocervicitis	7	2·8
Cervical Erosion	65	26·0
Trichomoniasis and Cervical Erosion	2	0·8
		29·6
Moniliasis	5	2·0
Cystitis (*B. coli*)	1	0·4
Bartholin's Abscess	1	0·4
No Abnormality	82	32·8
Total	250	100

Two patients were the contacts of men with Reiter's syndrome. One of these women had an acute endocervicitis and the other had a cervical erosion. They were both free from joint or eye symptoms.

Nothing abnormal was found in 32·8 per cent. of N.G.U. contacts.

Comment

The above findings suggest that there may be three main groups, approximately equal in numbers, into which cases of N.G.U. can be divided.

(1) Those with venereally acquired trichomoniasis and moniliasis. Feo, Varano, and Fetter (1956) found that, of 75 men suffering from N.G.U., 41 per cent. were trichomonas-positive. This number is close to the 35 per cent. incidence in the female contacts of the present investigation. The percentage of monilia infections was insignificant and has been included in this group for descriptive convenience.

(2) An almost equally large group, also venereal, in which the female contacts have endocervicitis or cervical erosions. It seems likely that these are infective lesions with a different aetiology from the chronic cervicitis and erosions sometimes found in multipara following trauma to the cervix at childbirth. One might be bold, but not very original in postulating a virus or virus-like organism as the aetiological agent. There are some grounds for suggesting that cases of Reiter's syndrome would fall into this second group.

(3) A non-venereal group, which would include cases of N.G.U. due to the ingestion of certain foods and drugs, to the use of some chemical contraceptives, or to trauma of the urethral mucosa. It has been known for many years that N.G.U. can be caused by agents other than living organisms. In

this category Harkness (1950) describes more than thirty substances which have produced non-gonococcal urethritis. Many venereologists consider that these cases are exceptional; but the percentage of healthy contacts (32 per cent.) in the present study points to a significant incidence of non-infective N.G.U. Support for this concept is found in a study of the epidemiology of non-specific urethritis, in which Boyd, Csonka, and Oates (1958) mention that 23 per cent. of their patients with this disease denied any recent extra-marital intercourse.

Summary

250 female contacts of males suffering from N.G.U. were examined. 60·8 per cent. stated that they were symptom free and 34·4 per cent. complained of a vaginal discharge.

Trichomoniasis and disease of the cervix accounted for 64·4 per cent. of the diagnoses.

It is suggested that in two out of every three patients N.G.U. is a venereal disease.

In the remainder a non-infective cause may be responsible for the urethritis.

REFERENCES

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